



HOUSTON HEALTH
DEPARTMENT



Office of Surveillance & Public Health Preparedness
Program of Public Health Informatics

Influenza Surveillance Weekly Report
CDC MMWR Week 07: February 14—20, 2016

Influenza Activity by County, State, and National Levels

Houston/ Harris County: Week 07	Texas: Week 07	CDC: Week 07
Increasing	Available Next Week	Available Next Week

Highlights

- The Houston Health Department (HHD) conducts seasonal influenza surveillance from October (Week 40) 2015 to May (Week 22) 2016. In Week 07, flu activity **increased** from the previous week. ILI activity is increasing and widespread. Flu activity typically peaks in February. There is still time to get a flu vaccine which covers this season's circulating types of influenza.

Influenza Like Illness

- The percentage of reported influenza-like illness (ILI) detected from emergency departments in Houston/Harris County **increased** from 1.6% in week 06 to 1.8% in week 07. The proportion of ILI was below the baseline of 2.2%.
- The percentage of Flu Near You users reporting ILI is 1.15%.

Virology

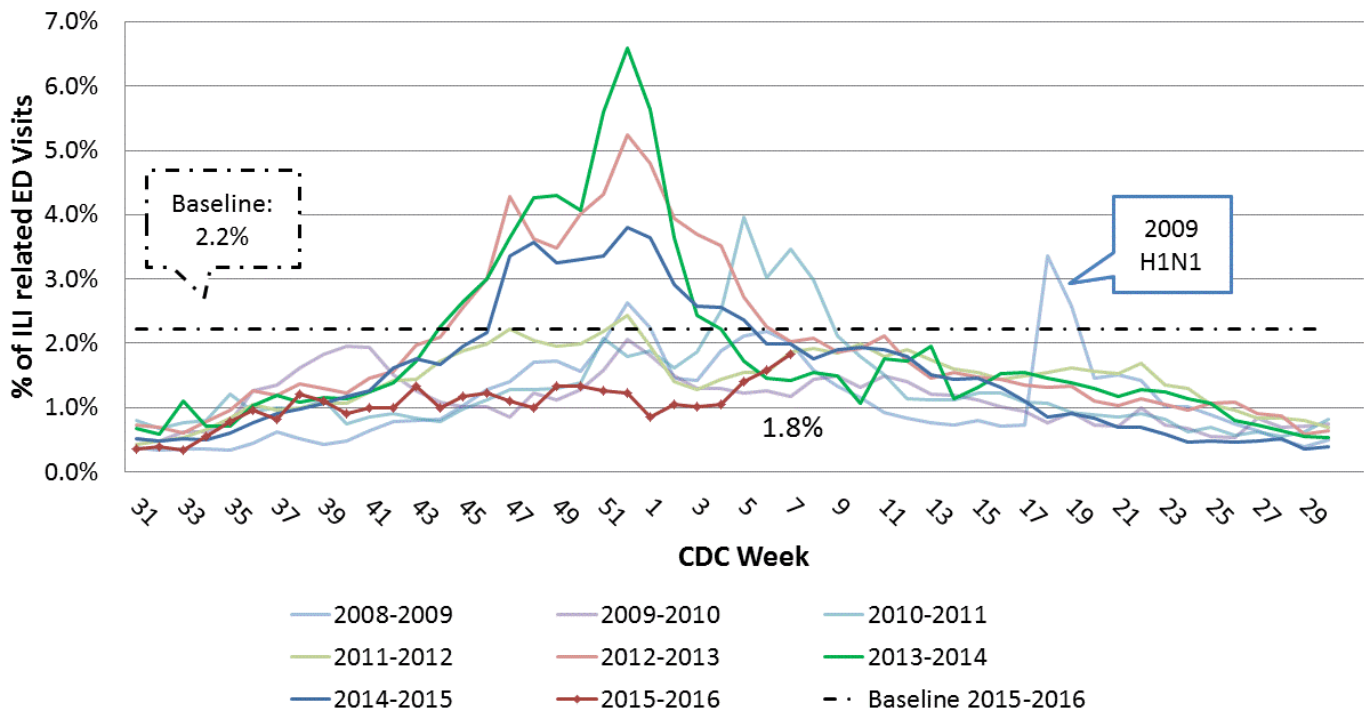
- The percentage of flu test positives from sentinel providers in Houston **increased** from 47% in week 06 to 52% in Week 07.
- In Week 07, 42 surveillance specimens were tested by the City of Houston Bureau of Laboratory Services. The following types and number of viruses were detected: **Influenza A H3 (11), Influenza A H1N1 (5), Influenza B (3).**
- Cumulatively this season, the City of Houston Bureau of Laboratory Services has tested 348 surveillance specimens. Of the 38 positive lab results, Influenza A/H3 accounts for 20 (52.6%) of the positives.
- HHD receives electronic lab reports from clinical labs. In Week 07, there were 61 flu positive specimens.

Pediatric Mortality

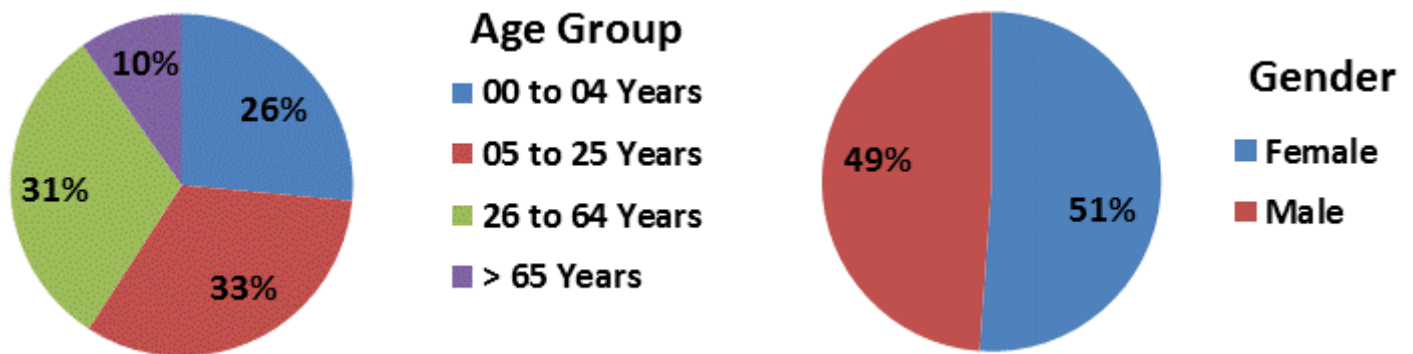
- During the 2015-2016 influenza season, zero (0) Houston influenza-associated pediatric deaths have been reported.

Syndromic Surveillance: 2015-2016 Influenza Season

Comparison of ILI-Related ED Visits in Houston/Harris County



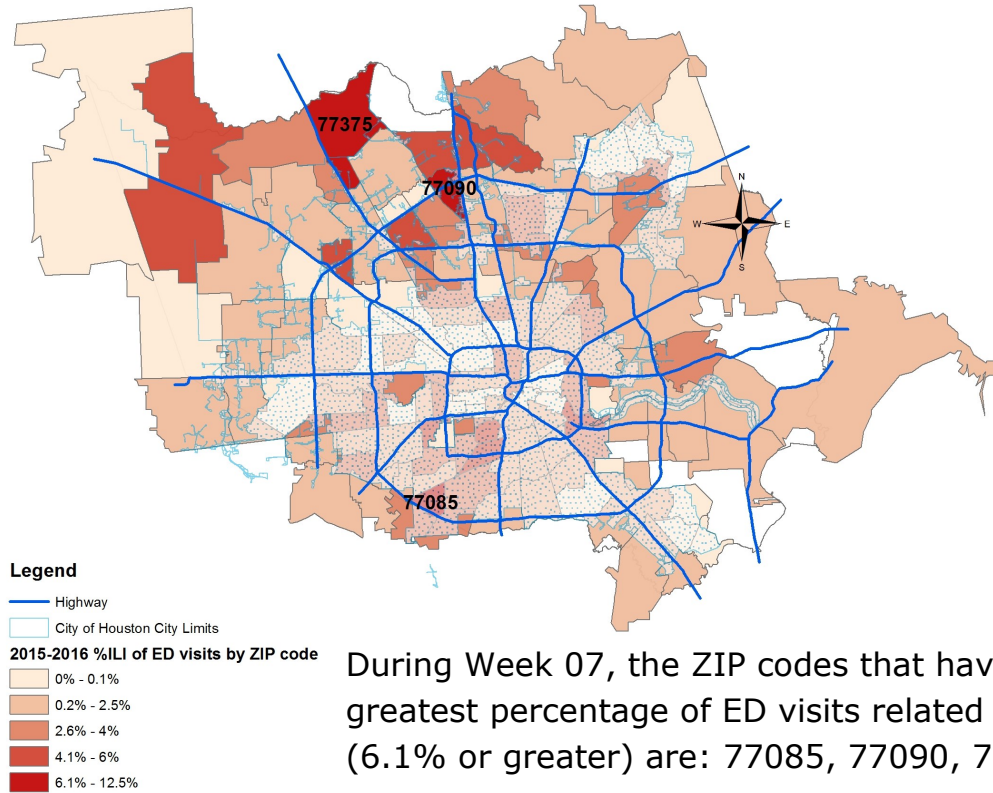
Syndromic Surveillance: 2015-2016 Influenza Season Age and Gender Distribution



In Week 07, 1.8% of emergency department (ED) visits were due to influenza-like illness (ILI) complaints. Of the 306 patients presenting with ILI, the age group that recorded the most ED visits was the 05 to 25 year olds (33%). Females accounted for 51% of patients presenting with ILI.

NOTE: Houston/Harris County ILI activity is assessed using information provided by surveillance participants in the Real-time Outbreak Disease Surveillance System (RODS). For week 07, 36 surveillance participants reported ILI information to Houston Health Department. Influenza-like illness (ILI) is defined as the mention of fever AND cough, OR fever AND sore throat, OR flu in the patient's ED chief complaint. These data do not represent laboratory confirmed cases of influenza nor do they represent all ED visits in Houston/Harris County.

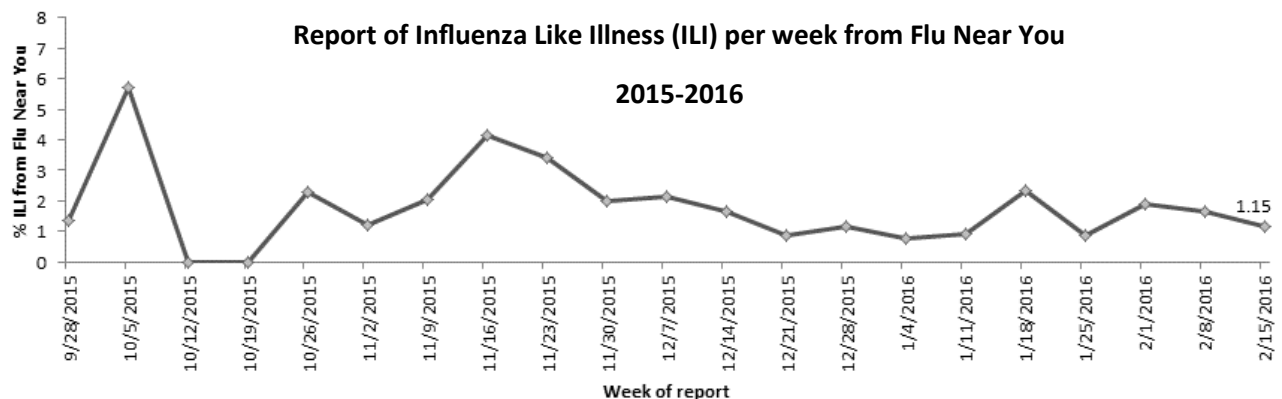
Syndromic Surveillance: Geographic Distribution Map



During Week 07, the ZIP codes that have the greatest percentage of ED visits related to ILI (6.1% or greater) are: 77085, 77090, 77375

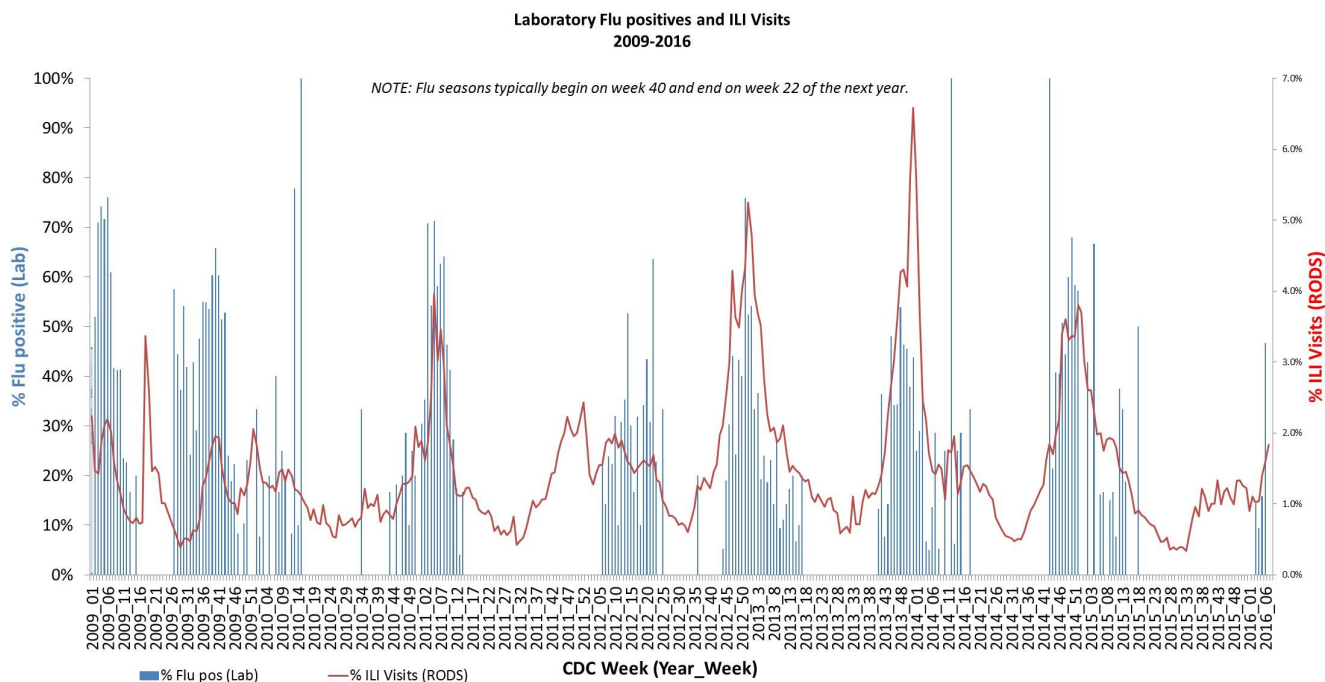
NOTE: Houston/Harris County ILI distribution map was created using data provided by 36 hospitals that voluntarily provide data based on chief complaints in the Real-time Outbreak Disease Surveillance System (RODS). This map reflects the percentage of ILI cases from each zip code from the total amount of cases seen in each zip code during the current week of reporting. Influenza-like illness (ILI) is defined as the mention of fever AND cough, OR fever AND sore throat, OR flu in the patient's ED chief complaint. These data do not represent laboratory confirmed cases of influenza nor do they represent all ED visits in Houston/Harris County.

Flu Near You: ILI per week



Flu Near You (FNY) is a participatory surveillance tool which compliments traditional disease surveillance. The percentage of FNY users reporting ILI decreased from 1.67% on 02/08/2016 to 1.15% on 02/15/2016. See the last page for information on how to participate.

Laboratory Surveillance: Influenza Rapid Test Results, Houston

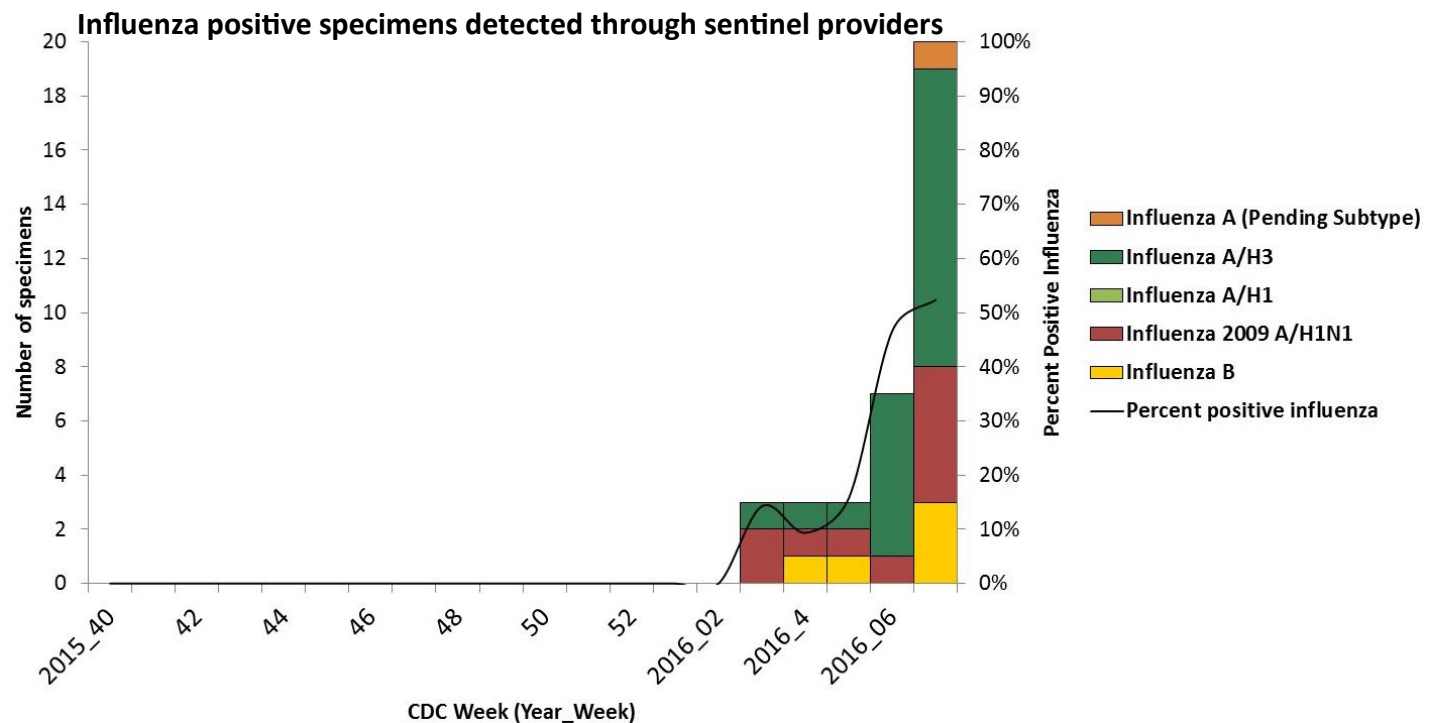


CDC Week Number	05 (Jan 31–Feb 06)	06 (Feb 07–13)	07 (Feb 14–20)
# of Influenza Tests Performed	19	15	42
% Influenza Positive	15.8%	46.7%	52.4%
# Influenza A Positive	2	1	17
% Influenza A Positive	66.7%	14.3%	77.3%
# Influenza B Positive	1	6	3
% Influenza B Positive	33.3%	85.7%	13.6%
# Co-infection	0	0	2
% Co-infection	0.0%	0.0%	9.1%

Virologic Surveillance: 2015-2016

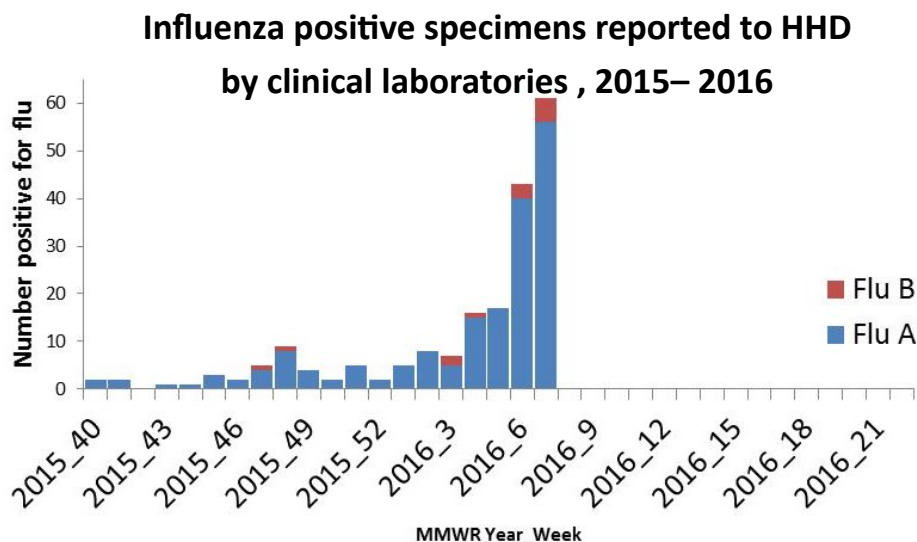
Influenza Viral Surveillance Summary

- During the 2015-2016 flu season the HHD Office of Surveillance and Public Health Preparedness tested 348 specimens from sentinel providers and detected Influenza A/H3 (52.6%), Influenza 2009 A/H1N1 (26.3%), Influenza B/Yamagata (10.5%), Influenza co-infection (5.3%), Influenza B/Victoria (2.6%) and Influenza A Pending Subtype (2.6%). Among weeks with 5% or greater positive influenza lab results, the average percent of positive influenza lab results was 27.7%.
- For MMWR Week 07, twenty-two (22) specimens tested positive for influenza virus. This season MMWR Week 07 had the highest percentage (52%) of positive influenza lab results.



Passive Viral Surveillance

HHD receives electronic lab reports from clinical laboratories. In Week 07, there were 61 additional laboratory confirmed influenza cases from the prior week. Flu A accounts for 93.8% of the flu positives.



School Surveillance

Table 1: ILI and Influenza Cases by Type and School Type¹ per Month

	Total Cases	Lab Confirmed		Flu A	Flu B	A+B	Unclassified	Elem Schools	Middle Schools	High Schools	Multi-Level Schools
		#	%								
Aug	-	-	-	-	-	-	-	-	-	-	-
Sep	03	01	33%				02	01	01	01	00
Oct	04	00	0%	-	-	-	04	03	01	00	00
Nov	04	00	0%	-	-	-	04	02	01	01	00
Dec	04	00	0%	-	-	-	04	03	01	00	00
Jan	05	00	0	-	-	-	05	04	01	00	00
Feb											
Mar											
Apr											
Total											

September was the first full month of 2015-2016 school year. ILI cases in HISD students increased in January 2016 (05) compared to December 2015 (04). There were zero laboratory confirmed flu cases in January.

NOTE: Data on student ILI and influenza cases is collected from 306 schools within Houston Independent School District. ¹School will be counted more than once if more than one case from the same school is reported during the

Texas and National Influenza and ILI Activity

Texas Map with Flu Activity will be posted in next week's report.

NOTE: Influenza activity level corresponds to current MMWR week only and does not reflect previous weeks' activity. The majority of influenza cases are not reportable by law to the Texas Department of State Health Services. This map contains data from sentinel sites and does not represent all influenza cases in the state. Positive laboratory results are reported according to specimen collection date or date received in the lab if the former is unknown.

<http://www.dshs.state.tx.us/idcu/disease/influenza/surveillance/2015/>

National Map with Flu Activity will be posted in next week's report.

NOTE: Data collected in ILINet are used to produce a measure of ILI activity by state. Activity levels are based on the percent of outpatient visits in a state due to ILI and are compared to the average percent of ILI visits that occur during spring and fall weeks with little or no influenza virus circulation. This map uses the proportion of outpatient visits to health care providers for influenza-like illness to measure the ILI activity level within a state. It does not, however, measure the extent of geographic spread of flu within a state. Therefore, outbreaks occurring in a single city could cause the state to display high activity levels. Data collected in ILINet may disproportionately represent certain populations within a state, and therefore, may not accurately depict the full picture of influenza activity for the whole state. <http://www.cdc.gov/flu/weekly/>